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STUDIES IN CARANGID FISHES

No. 1

NAKED THORACIC AREAS

by

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NAKED THORACIC AREAS

(With Plates 30 and 31)

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Family Carangidae

Certain Carangine fishes have at least part of the chest naturally free from scales. This feature has long been noticed and widely used in differentiation, but mostly in rather indefinite terms, such as: "Naked area on chest more than halfway to pectoral." There has apparently been little attention given to this feature or at least little of significance has been published about it. Descriptions of these areas are usually vague and contain little definitive information.

In the course of a revisional study of the Carangid fishes of the western Indian Ocean still in progress, it was found that these naked areas vary widely in shape and extent between different species, but that in each species of which numbers were available for examination there is remarkable constancy of shape, form and extent of this scaleless area.

This was especially marked in the case of the species widely confused under the name of **Caranx malabaricus** (Bl-Schn, 1801), which will be dealt with in Part 2 of this series.

The present investigation has shown that the use and value of the nature and degree of the naked area on the breast is of more importance as a specific diagnostic character than has previously been recognised. In the present revisional study we have found it to be of primary importance in that respect.

While we do not have available extensive series of more than a few species of **Caranx** Lacepede, 1802 (**s.l.**) that have these naked areas, what is observed indicates that there is likely to be sufficiently close correspondence in the shape and extent of the area in any one species as to merit its use as a critical diagnostic character, both initial and final, for species in which such areas are present.

In every case where it has been possible to investigate a series of any species, while there are minor variations, such as wavy rather than straight margins of part of the area, the general shape and extent of the area remain characteristically recognisable at a glance. In many cases species may be certainly diagnosed by this feature alone, and in all cases so far investigated these naked areas together with normal data such as fin, gillraker and scute counts assist in rapid and accurate identification of species even in juveniles.

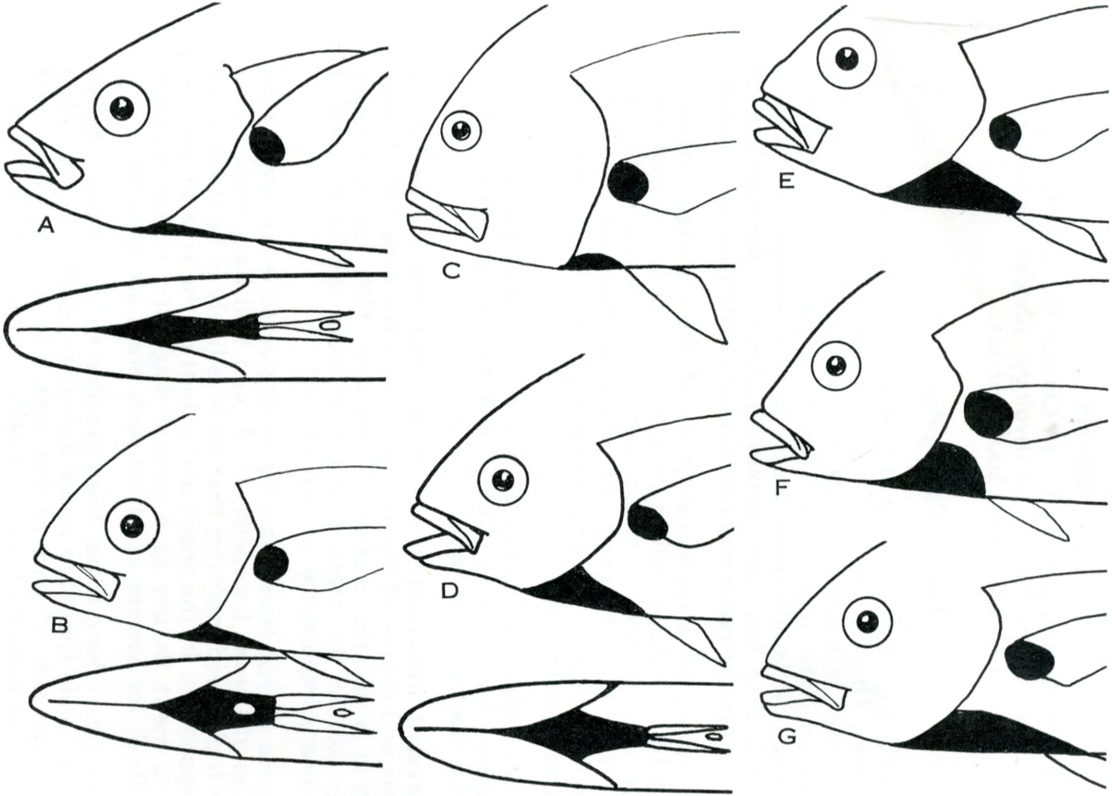

Plate 30

Naked areas shown in black. Total length is stated in each case.
A. **C. auroguttatus** C & V. 180mm. B. **C. nitidus** sp.nov. 250mm.
C. **C. ignobilis** (Forsskal). 600mm. D. **C. ferdau** (Forsskal). 275mm.
E. **C. oblongus** C & V. 310mm. F. **C. dinema** Blkr. 280mm.
G. **C. fulvoguttatus** (Forsskal). 400 mm.

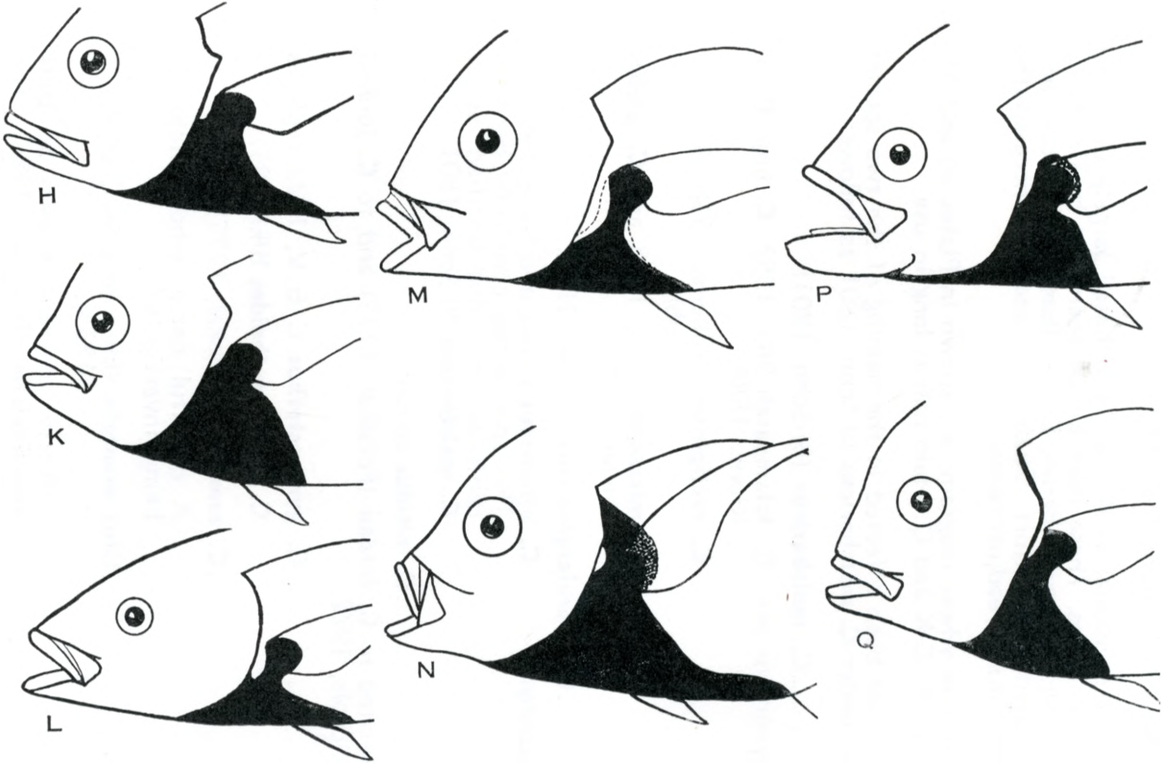

Plate 31

Naked areas shown in black. Total length is stated in each case. H. **C. chrysophrys** C & V. 270mm. K. **C. armatus**(Forsskal). 280mm. L. **C. gymnostethus** C & V. 600mm. M. **C. caeruleopinnatus** Ruppell. 270mm. N. **C. malabaricus** (Bl-Schn). 140mm. P. **Ulua mentalis** (Ehrenberg in C & V) 440mm. Q. **C. uii** Wakiya 160mm.

Diagrams of all species in the western Indian Ocean that have a naked area on the side of the chest as well as on the ventral surface of the breast are given in Plates 30 and 31. In addition to the 14 species illustrated there are two others with only the lower surface of the breast mostly naked with a small central patch of scales before the pelvic base, but without any dorsal extension of the naked area visible from the side.

This recent revisional work has been based largely on study of early type specimens. These have kindly been sent by Dr. M. L. Bauchot, Paris, Dr. C. Karrer, Berlin, Dr. M. Boeseman, Leiden, and Dr. W. Klausewitz, Frankfurt. Study of these has necessitated certain nomenclatural readjustments.

Of the species whose diagrams are shown in Plates 30 and 31, those of figures A, C-K and Q retain names long in use.

A change has been effected in the naming of the two species long confused under **C. malabaricus** Bl-Schn, 1801 as follows:

(Fig. N)........................**C. malabaricus** (Bl-Schn, 1801)

Synonyms are: **C. talamparah** Blkr, 1852: **C. impudicus,** Klunz, 1884.

C. rectipinnis Williams, 1958. Also possibly

C. micraspis Kner, 1868 and **C. gibber** Fowler, 1904.

(Fig. M)......................**C. caeruleopinnatus** Ruppell, 1828.

Synonym: **C. altissimus** Jordan and Seale, 1907. This species has constantly been confused and malidentified as **C. malabaricus** Bl-Schn, 1801.

(Fig. B)...**C. nitidus** sp.nov.

Related to **C. ferdau** (Forsskal, 1775) and to **C. jordani** Nichols, 1922.

(Fig. L).. **C. gymnostethus** C & V, 1833 replaces **C. gymnostethoides** Blkr, 1851.

(Fig. K)..**C. armatus** (Forsskal, 1775).

A doubtful name, whose status is being investigated.

(Fig. P)..**Ulua mentalis** (Ehrenberg in C & V, 1833).

Hitherto generally known as **Ulua mandibularis** (Macleay, 1883). The 660mm type of **C. mentalis** from Massaua, Red Sea, is in the Berlin Museum.

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